



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,508	01/28/2002	Richard King	265280-68188	2174

23643 7590 12/17/2004

BARNES & THORNBURG
11 SOUTH MERIDIAN
INDIANAPOLIS, IN 46204

EXAMINER


LEE, EDMUND H

ART UNIT PAPER NUMBER

1732

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/058,508	Applicant(s) KING ET AL.	
	Examiner EDMUND H. LEE	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,3,4,5,8,9,10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devanathan et al (USPN 5645594). In regard to claim 1, Devanathan et al teach the basic claimed process including a method of making an implantable bearing (col 2, lns 10-61; figs 1-2); providing a first layer of polymer (col 2, lns 10-61; figs 1-2); providing a second layer of ethylene and acrylate (col 2, lns 10-61; figs 1-2); securing the first layer to the second layer (col 2, lns 10-61; figs 1-2); and forming the composite into a predetermined shape of the implantable bearing (col 2, lns 10-61; figs 1-2). Devanathan et al, however, do not teach using a copolymer of ethylene and acrylate. It is well-known in the molding art that a copolymers and a blend of two materials are substitutable alternatives. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the blend of Devanathan et al with a copolymer of ethylene and acrylate since they are substitutable alternatives. In regard to claims 3-5, 8-10 and 13, such are taught by Devanathan et al (col 2, lns 10-61; figs 1-2). In regard to claims 2, 6 and 7, Devanathan et al do not teach exposing the first layer to a dose of radiation so as to crosslink the polymer; using a copolymer of ethylene and butyl methacrylate; and using a copolymer of ethylene and

Art Unit: 1732

ethyl methacrylate. In regard to exposing the first layer to a dose of radiation so as to crosslink the polymer, it is well-known in the molding art to crosslink/cure by radiation. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to cure the polymer of the first layer by exposing it to radiation in order to facilitate curing. In regard to using a copolymer of ethylene and butyl methacrylate, Devanathan et al teach using UHMWPE (col 2, lns 10-61). The use of butyl methacrylate is a mere obvious matter of choice dependent on the desired final product and material availability and of little patentable consequence to the claimed process. Further, butyl methacrylate is well-known in the molding art for its strength. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use butyl methacrylate in place of PMMA of Devanathan et al in order to diversify the product of Devanathan et al. In regard to using a copolymer of ethylene and ethyl methacrylate, Devanathan et al teach using UHMWPE (col 2, lns 10-61). The use of ethyl methacrylate is a mere obvious matter of choice dependent on the desired final product and material availability and of little patentable consequence to the claimed process. Further, ethyl methacrylate is well-known in the molding art for its strength. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use ethyl methacrylate in place of PMMA of Devanathan et al in order to diversify the product of Devanathan et al.

3. Applicant's arguments with respect to all the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 1732


4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bateman et al (USPN 5879404) teach compression molding a two layered polymeric acetabular cup.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571.272.1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EHL

EDMUND H. LEE
Primary Examiner
Art Unit 1732



12/13/04